ABSTRACT

Certain embodiments of the present invention are directed at data storage devices capable of storing, reading and writing data to storage areas of nanometer dimensions. Certain embodiments are directed at devices wherein a fluid medium and particles are provided between a storage medium and an energy-emitting tip to channel energy from the tip to the storage medium. Certain embodiments are directed at devices wherein conductor molecules are attached to the surface of the storage medium and channel energy to the storage medium from an energy-emitting tip. Certain embodiments of the present invention are directed at methods of reading and writing to a storage medium by making use of intermediate particles and/or molecules to channel beams from a tip to a storage medium where data is stored.